# 5th International Symposium on Metallic Multilayers (MML '04)

## Final Call for Papers

~~Abstract Deadline: 31 December, 2003~~

***Revised*** **Abstract Deadline 16 January, 2004**

When: 7 – 11 June, 2004

Where: National Institute of Standards and Technology
Boulder, Colorado, USA

The Metallic Multilayers Symposium will be held in Boulder, Colorado, on 7-11 June 2004 (MML '04). This upcoming meeting continues the tradition of giving scientists a single-session venue for the presentation of outstanding, cutting-edge research in a relaxed, picturesque setting. Past symposia were held in Kyoto 1992, Cambridge 1995, Vancouver 1998, and Aachen 2001. MML '04 will be held on the campus of the National Institute of Standards and Technology. Topics for the symposium include both fundamental and applied aspects of magnetic metallic multilayers. The subject matter spans the range from film properties to devices; from spin injection into semiconductors to spin-dependent tunneling; from magnetization dynamics to exchange bias; from magnetic recording media to patterned structures … to name just a few exciting topics of research. Further information regarding the symposium may be found at mml04.boulder.nist.gov after January 1, 2004.

Symposium Co-chairs:

Dr. Thomas J. Silva
Electromagnetics Division
NIST
Boulder, Colorado
USA

Prof. Zbigniew Celinski
Physics Department
University of Colorado at Colorado Springs
Colorado Springs, Colorado
USA

## Confirmed Invited Speakers

Magnetization Dynamics

- Alexandra Mougin (Université Paris-Sud, France)
- Bret Heinrich (Simon Fraser University, Canada)
- Sergei Demokritov (University of Kaiserslautern, Germany)
- Hermann Duerr (BESSY, Germany)

Magnetic Data Storage

- Nick Rizzo (Motorola, Phoenix)
- Yoshishige Suzuki (Nanoelectronics Research Institute, Japan)
- Chris Bajorek (Komag, San Jose)
- David Sellmyer (University of Nebraska)

Fundamental Properties

- Bob Stamps (University of Western Australia)
- Wolfgang Kuch (Max Planck Institute, Germany)

Magnetic-Based Logic

- Russel Cowburn (University of Durham, UK)
- Klaus H. Ploog (Paul Drude Institute for Solid-State Electronics, Germany)

Current-Driven Domain Wall Motion

- Jaques Miltat (Université Paris-Sud, France)
- Teruo Ono (Osaka University, Japan)
- Vincent Cros (CNRS-Thales, France)

Spin Momentum Transfer Theories

- Mark Stiles (NIST, Maryland)
- Gerrit Bauer (Delft University, The Netherlands)

Spin Momentum Transfer Experiments

- Ilya Krivorotov (Cornell University)
- Bill Rippard (NIST, Colorado)

## Abstract Submission Requirements

- Abstracts must be submitted before the *revised* deadline of midnight, Jan. 16, 2004.
- The presenting author ***must*** be a paid registrant. The Symposium does not provide support for any contributed papers.
- All single-page abstracts must be submitted in **PDF format** via **E-mail ONLY**. Abstracts sent via fax or regular mail will not be processed or acknowledged. Abstracts must be sent to silva@boulder.nist.gov as an e-mail attachment.
- Abstracts should be **400 words** or less. Two figures/tables are permitted. Color may be used for the figures/tables, but the printed version for the Symposium

Program will be in black & white. Titles, authors, addresses, and references will not count in the 400 word limit.

- Follow instructions on the allowed formats for the abstract submission. Only the format described in the instructions will be accepted.
- ***Be sure to provide a clear and correct e-mail address for the corresponding author.*** This will be used to notify you of acceptance and the location of informational materials.
- Abstract acceptance will be announced via e-mail. Authors will be advised as to the status of their submission by early February 2004**.**

## Presentation Format

Contributed papers accepted for the Symposium will be presented either orally or by poster. Oral presentations will be in the conventional format of a 15-minute talk by the registered author using either PowerPoint or overhead projector transparencies, followed by a 5-minute discussion period. Poster presentations will consist of well-prepared visual materials about the work posted on a designated board, with the author available to present details and answer questions during the selected poster session times. Authors are requested to indicate their preference for oral or poster presentations in their abstract. The Program Committee will make the final decision on the assignment of papers to sessions and the presentation format for each session. The majority of contributed papers will be presented as posters. In the e-mail notice of acceptance, authors will be notified of the type of session for their presentation. They will also receive a URL for detailed rules and instructions for their presentation.

## Publication

The Proceedings of the Symposium will be published in February 2005, as a special issue of the *Journal of Magnetism and Magnetic Materials*. Detailed instructions on the preparation of manuscripts for submission to the journal will be available on the Symposium home page for authors whose papers are accepted for presentation at the Symposium. The maximum paper length is six journal pages for invited papers and three journal pages for contributed papers. **All manuscripts must be received by April 1, 2004.** This deadline will be strictly observed. Post-deadline manuscripts will not be accepted and not forwarded for review. Authors are reminded that review standards will mirror those used for regular articles submitted to *Journal of Magnetism and Magnetic Materials*, and that, because of time constraints, a second review may not be possible for resubmitted papers that were originally rejected. Papers must be presented at the Symposium by an author registered at the Symposium in order to be published in the Proceedings.

## Abstract Guidelines

Authors should make an effort to present their work in the best possible light. To maximize your chances of acceptance, please strictly follow the guidelines and keep in mind the following abstract acceptance criteria used by the Program Committee:

- The research must be about metallic multilayers, magnetism, magnetic materials, or magnetism-related technology.

- The work must be original and significant. Abstracts that describe incremental advances over previously presented work will be rejected.
- The work must be substantially complete. Abstracts that do not specifically refer to new results or are largely conceptual will be rejected. Sufficient context and detail must be included to allow the program committee to readily make an assessment of the work.
- In the interest of allowing as many groups as possible to present their work, groups or individuals considering the submission of several related abstracts should, whenever possible, combine them into a single submission.
- The abstract must be in understandable English. If necessary, have a native English speaker edit your abstract before submission.
- The abstract must be in the correct format (see *Abstract Format* section below)

## Abstract Format

- Use Times New Roman 12-point font throughout the abstract, except for mathematical equations and expressions.
- Line spacing must be at least 1.17 times the font size.
- The title must use all capital letters, bold font, and use centered alignment.
- The authors and affiliation must be in italics, and use centered alignment.
- The body of the abstract must use justified alignment.
- The page must be formatted using A4 or 8½ × 11 inch paper size. If A4, use 3.18 cm left margin, 2.59 cm right margin, 2.54 cm top margin, and 4.29 cm bottom margin. If 8½ x 11, use 1.25 inch left and right margins and 1.00 inch top and bottom margins. The abstract text plus figures may not exceed the one-page limit.
- While any word processing program may be used to write the abstract, **the final abstract must be converted into PDF format for the final submitted version.**

## Sample Abstract

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**MAGNETIC PROPERTIES OF GRIZZLY BEARS**

*J.T. Smith, Department of Metallurgy and Zoology, University of Hard Knocks, Knocksville, Colorado 80301, USA*

We have measured the magnetic properties of wild grizzly bears (WGBs), including coercivity, remanence, and anisotropy [1]. As shown in Fig. 1, we found that WGBs do not appreciate having their magnetic properties measured. New magnetometers capable of containing angry WGBs were specifically developed for the task. While we found that bears have a non-zero remanence, confirming theories as to the ferromagnetic properties of the animals, other factors were found that reduce the chances for the practical use of WGBs as a data storage medium.

**Fig. 1. Photo of WGB shortly after measurement of coercivity.**

**References**

[1] J.T. Smith et al., J. Metal. Zoo. **94**, 1111 (2003).

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## Visa Requirements for Entry into the USA

Citizens of other countries must carry a valid passport and visa to enter the USA. Foreign participants should contact the United States Embassy, Consulate, or Office of Tourism in their home country AS SOON AS POSSIBLE to determine their particular visa requirements. Participants requiring visas must initiate the application process well in advance of their departure date. If you need a personal letter of invitation to attend the symposium, contact Dr. Thomas J. Silva, Div. 818.03, NIST, 325 Broadway, Boulder, CO 80305; E-mail: silva@boulder.nist.gov; fax: 303-497-7364; telephone: 303-497-7826. Be sure to provide your complete mailing address so that a signed letter of invitation can then be mailed to you via standard airmail service. **Note**: The MML Symposium *cannot* contact or intervene with any U.S. Embassy or Consulate office abroad on your behalf.

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